APPENDIX A

In the United States Court of Claims

No. 377-75

(Decided May 5, 1982)

CAFFALL BROS. FOREST PRODUCTS, INC.
v. THE UNITED STATES

William F. Lenihan, attorney of record, for plaintiff. James F. McAteer, of counsel.

Zinora M. Mitchell, with whom was Assistant Attorney General J. Paul McGrath, for defendant.

Before SKELTON, Senior Judge, BENNETT and SMITH, Judges.

OPINION

PER CURIAM: This case comes before the court on plaintiff's exceptions to the recommended decision of Trial Judge Harry E. Wood, filed March 25, 1981, pursuant to Rule 134(h), having been submitted to the court on the briefs and oral argument of counsel. Upon consideration thereof, since

the court agrees with the trial judge's recommended decision as hereinafter set forth,* it hereby adopts the decision as the basis for its judgment in this case. Therefore, it is concluded that plaintiff is not entitled to recover, and the petition is dismissed.

OPINION OF TRIAL JUDGE

WOOD, Trial Judge: In this action, plaintiff, a corporation organized and existing under the laws of the State of Oregon, sues to recover damages for alleged breach of a 1969 timber sale contract (hereinafter described).

On May 21, 1976, defendant filed a motion for summary judgment herein.

---

* Although the court adopts the trial judge's separate findings of fact, which are set forth in his report, they are not printed. Also not adopted and deleted are footnote 24 and Part IV of the trial judge's opinion.

Following oral argument, defendant's motion for summary judgment was denied without prejudice by order dated April 12, 1977, and the case was remanded to the trial division for trial or other appropriate proceedings to ascertain the facts. Trial has been held, briefing has been completed, and the case is ready for decision.

Plaintiff principally contends that the volume estimate (a total of 13,300,000 board feet, or 13,300 MBF) of timber stated in the contract in suit constituted a warranty; that the said warranty was breached, in that the actual volume of merchantable timber cut and removed by plaintiff pursuant to the Skogi sale was some 3,514 MBF less than the estimated volume; that a contractual provision that the estimated quantities stated in the contract "are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under

the terms of this contract" does not bar recovery for damages resulting from the shortfall in timber cutout; and that such damages amount to some $925,000, or, alternatively, to some $1,250,000.

Defendant denies any breach of contract. Its position is that the contract volume estimate was not a warranty of quantity, that the contract contained an explicit and effective disclaimer of warranty, that while its volume estimate was unquestionably not accurate, plaintiff has failed to establish that the said estimate is, under Timber Investors, Inc. v. United States, 218 Ct. Cl. 408, 587 F.2d 472 (1978), an actionable one; and that, even assuming a breach of warranty, plaintiff's proof on damages is fatally defective.

For the reasons hereinafter appearing, it is concluded that plaintiff is not

entitled to recover, and that the petition should be dismissed.

Some time prior to December 5, 1969, the United States Forest Service published and made available to prospective bidders, including plaintiff, an advertisement, a prospectus, and a bid form concerning a proposed timber sale (the Skogi sale). The Forest Service also published, and made available for inspection at a specified Forest Service office, a sample timber sale contract covering that sale.

The Skogi sale advertisement indicated, among other things, that the Forest Service would receive sealed bids up to 9:00 a.m., December 2, 1969, for an estimated 13,300 MBF (thousand board feet) of timber marked or otherwise designated for cutting, that applicable "Purchaser

road credits are $264,764.00",[1] and that full information concerning the timber, conditions of sale, and bidding should be obtained at a designated Forest Service office.[2]

The Skogi sale prospectus stated that the sale area, and a sample timber sale contract, should be inspected before submitting a bid. There is no evidence that the provisions of the sample timber sale contract either differed in any material way from the information in the Skogi sale prospectus, or were in any way revised prior to award of the Skogi contract to plaintiff. The Skogi sale prospectus also reflected and "Estimated

---

[1] "Purchaser road credits" will be discussed hereinafter.

[2] The Skogi sale prospectus repeated the advice respecting availability of information from the Forest Service. The record does not establish that plaintiff sought any such information from the Forest Service prior to bidding on the Skogi sale.

Volume" of 2,000 MBF of Douglas fir, and of 11,300 MBF of Pacific silver fir and other coniferous species, and a "Total estimated volume" of 13,300 MBF.[3]

The prospectus also stated, among other things, (1) that certain described "Specified Roads" were to be constructed by the purchaser of the Skogi sale, that "Applicable road credits up to * * *" $264,764 would be "credited to Purchaser's Timber Sale Account as roads are constructed and accepted"; (2) that "Purchaser road credits may only be applied to timber charges in excess of timber values at Base Rates"; and (3) that volume, quality, and operating cost estimates were "made available with the understanding that costs and values shown are not estimates of a purchaser's own costs or recovery estimates", and that for "these reasons, bidders are

---

[3] The prospectus also indicated tht 7,900 MBF of that timber could be exported.

urged to examine the timber sale area and the sample Timber Sale Contract and make their own cost and recovery estimates."[4]

Cruising is the process by which the volume of merchantable timber (in board feet) in a given area is estimated. The process involves selection of sample areas or plots, an estimate of gross volume on those areas or plots, estimates of defects and of breakage, and extension of the sample results to the whole.[5] The final product is no more than an estimate, based on a statistical sample, of probable timber volume within a given area, and human or statistical errors at any part of the process obviously affect the validity of the ultimate conclusion.

---

[4] The proposed Skogi sale had been cruised by the Forest Service in August 1968.

[5] In the area here relevant, 10 or 20 percent sampling was deemed suitable.

Within both the Forest Service and the timber industry generally, cruisers strive for an estimate of volume within plus or minus 10 percent of the actual scaled cutout from a given area, and a cruise within those parameters is generally deemed an accurate one. The evidence is, however, that underruns are the rule rather than the exception: plaintiff's own experience with Mt. Hood and Gifford Pinchot National Forest timber sale contracts awarded between June 1969 and April 1973 was that underruns frequently exceeded 25 percent of estimated volume.[6] Considering all of such contracts (including those where overruns occurred) as a whole, the

---

[6] Some underruns approached 50 percent of the estimated volume. One witness with wide experience in the timber industry testified that his company had experienced underruns (and overruns) of 30 to 40 percent on Forest Service timber sale contracts. Cruising is plainly more in the nature of a guess than a science.

sum of the underruns exceeded 13 percent of the sum of the estimated volumes.

Moreover, in the course of prolonged negotiations with a committee sponsored by the National Lumber Manufacturers Association concerning the contents of a proposed new timber sale contract (which ultimately became Forest Service Timber Sale Contract Form 2400-5, the contract form on which the Skogi contract was prepared), the Forest Service expressly rejected an industry proposal that the Service "warrant" within 10 percent the final net volume of timber to be cut pursuant to a Forest Service timber sale contract. With respect to sales (such as the Skogi sale) where the marking of timber was to be completed prior to sale advertisement, the industry in effect abandoned its request for such a warranty.

As of 1969, plaintiff was an experienced timber company with a history in the timber business dating back nearly 50 years. Its principal business activity at that time was log merchandising (the purchase, sale, and trading of logs), and it was actively engaged in the export of logs (primarily so-called "white woods", or true firs, including Noble fir and hemlock) to Japan. It then had on its books some 10 to 12 timber sales in various stages of activity, its logging program developed about 70,000 MBF of timber per year, and its annual sales volume was on the order of $30,000,000.

Before bidding on the Skogi sale, the head of plaintiff's forestry department and some of his staff spent a total of about six man-days examining the Skogi sale area. Plaintiff's examination resulted in several conclusions: that the timber on the sale

area was of a type of interest to plaintiff; that the cruise information on the Skogi sale prospectus appeared reasonable; that there was probably enough Noble fir on the Skogi sale area to fill most of the export allocation of 7,900 MBF; and that the Skogi sale's estimated volume of 13,300 MBF "would be there."[7]

Plaintiff thereafter submitted a timely bid on, and, on December 5, 1969, was awarded, Contract 02085-3 (hereinafter sometimes the Skogi contract). Pursuant to the contract terms, defendant, acting through the Acting Forest Supervisor, Mt. Hood National Forest, Region 6, Forest

---

7 Neither the precise method by which this latter conclusion was reached, nor the amount of time available to plaintiff to examine the sale area and make its own estimate of timber recovery, can be determined from the record. In this state of events, however, it cannot be concluded that there was an inadequate opportunity for such examination and estimate.

Service, Department of Agriculture, agreed to sell and permit plaintiff to cut, and plaintiff agreed to purchase and cut, "included timber" in eight clearcutting units covering 177 acres, more or less, in the Estacada Ranger District, Mt. Hood National Forest, Oregon.

Section A2, "Volume Estimate * * * applicable to * * * B2.4"[8] listed under the heading "Estimated Quantity", 2,000 MBF of Douglas fir logs and peeler blocks, 11,300 MBF of Pacific silver fir and other coniferous species, and a "Total" estimated quantity of 13,300 MBF.[9]

Section A5, "Timber Payment Rates * * * for Species * * *", incorporated a

---

[8] Section B2.4, asserted by defendant to be an effective disclaimer, is quoted hereinafter.

[9] The Skogi contract explicitly stated that Section B2.41, "Adjustment for Volume Deficit", among other "Standard Provisions" was inapplicable.

unit of measure of "M bd. ft.", and provided in part as follows:[10]

	Rates per Unit of Measure			
Species ***	Base	Advertised	Bid Premium	Bid
Douglas-fir logs and peeler blocks	$3.00	$23.75	-	23.75*
Pacific silver fir and other coniferous species of logs	2.00	21.95	$3.55	25.50

* Advertised at a fixed rate.

Section B2.4, referenced in Section A2, "Volume Estimate", provided as follows:

> Listed in [Section A2] Table 1 are the estimated volumes of timber designated for cutting under B2.3, expected to develop under the

---

[10] Base rates were the lowest rates of payment for timber authorized by the contract. Advertised rates were the minimum acceptable bid rates for timber. Bid premium rates were the amount by which the purchaser's bid was in excess of advertised rates. Bid rates were the rates bid by the purchaser, and were the sum of advertised rates and bid premium rates.

> Utilization Standards stated therein. If Sale Area Map indicates there are subdivisions where timber designation is to be done after date of sale advertisement, the objective of the Forest Service shall be to designate for cutting under B2.3 the approximate estimated volume by species or species groups stated in Table 1. The estimated quantities stated in Table 1 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

Under the Skogi contract, there were no subdivisions where timber designation was to be done after the date of sale advertisement.

The Skogi contract required that plaintiff construct (or reconstruct) several "specified roads", and specified a "purchaser credit limit" of $264,764 for such construction (and reconstruction). Section B4.22, "Purchaser Credit", provided in pertinent effect that plaintiff would become entitled to purchaser credit by such construction and reconstruction. Section

B4.22 also provided, however, that the purchaser credit limit (1) was "the maximum amount of credit which can be recognized hereunder for road construction * * *",[11] and (2) "shall never be in excess of the total estimated cost of the listed roads or road segments actually constructed."

In effect, the Skogi contract granted purchaser credits (to a stated maximum amount) for completed road construction to plaintiff. Earned but unused purchaser credits in plaintiff's Timber Sales Account could be offset against stumpage payments, in excess of base rates, due from plaintiff to defendant for timber cut and scaled.[12] Under the terms of the Skogi contract,

---

[11] The originally stated purchaser credit limit ($264,764) was subsequently increased to $299,883 as a result of Forest Service design changes.

[12] The contract contained no other provision for reimbursing plaintiff for road construction costs.

however, base rates could only be paid in cash, not by an offset of earned purchaser credits.

The Skogi contract's termination date (as extended in 1972 at plaintiff's request) was July 15, 1973. Plaintiff began logging the Skogi sale in 1970, and by October 23, 1972, all work under the Skogi contract except logging and cleanup of Unit 8, stream cleanout in Unit 6, and final road maintenance, had been completed. In other words, seven of the eight clearcutting units specified in the Skogi contract had been logged by October 23, 1972. None of those seven units had yielded as much timber as the Forest Service's appraisal had indicated, and plaintiff knew, or at the very least should have known at that time (if not even before then) that the actual final cutout volume from the Skogi

sale would fall far short of the estimated volume.[13]

Logging on the Skogi sale was completed by the end of June 1973. Actual gross volume from the sale was 10,117 MBF, and the net merchantable volume of timber actually cut, removed, and paid for pursuant to the Skogi contract was 9,785.83 MBF, 3,514.17 MBF less than the estimated volume of 13,300 MBF, or a shortfall of 26.4 percent. The Douglas fir cutout shortfall (1,105 MBF versus a volume estimate of 2,000 MBF) was 44.75 percent, while the Pacific silver fir and other coniferous species cutout shortfall (some 8,681 MBF versus a volume estimate of 11,300 MBF) was about 23 percent.

---

[13] Of course, the exact amount of the shortfall in board feet could not be determined in October 1972, but the fact of a shortfall, and a substantial one, was or should have been apparent to plaintiff by or even before that date.

Plaintiff fully performed its road construction (and reconstruction) obligations under the Skogi contract to the satisfaction of the Forest Service. Its total earned purchaser credits thereunder were $299,883.[14] Because the Skogi contract permitted offset of earned purchaser credits only against stumpage payments (in excess of base rates) due for timber cut and scaled, and because of the volume underrun just described,[15] plaintiff was able to apply earned purchaser credits of only $226,929.55 to the purchase of timber pursuant to the Skogi contract; earned purchaser credits of some $72,953.45 could not be so applied.

---

[14] Plaintiff's actual cost of specified road construction pursuant to the Skogi contract exceeded the estimated cost of such road construction. Such a situation frequently occurs. Plaintiff regards such excess costs "almost like a logging cost."

[15] Virtually all of the estimated volume stated in the Skogi contract would have had to be cut and removed for plaintiff to be

By letter dated July 30, 1973, to the Forest Service, plaintiff stated in substance that the Skogi "sale expired" July 15, 1973, that although plaintiff had earned purchaser credits of $299,883, it had been able to apply only $226,929.55 of such credits to stumpage payments, and that the result was "a deficient allowance for our road construction of $72,953.45." Plaintiff requested payment of the latter sum, but stated that it would accept additional timber from the Skogi sale in lieu of monetary payment. The Forest Service declined either to pay the amount requested or to make additional timber available to plaintiff. This action followed.

(Footnote 15 cont.)

able to apply all of its earned purchaser credits to stumpage payments. The margin between timber values above base rates and the contract purchaser credit limit was very thin.

II

With respect to liability, plaintiff contends that "the stated contract volume, when coupled with the purchaser credit limit, constituted a warranty". In support of this contention, it specifically asserts that, in Timber Investors, Inc. v United States, 218 Ct. Cl. 408, 587 F.2d 472 (1978), the court "authoritatively settled" that a prospective purchaser of Forest Service timber is entitled "to rely on statements of fact in timber sale contracts * * *", and that that holding necessitates a decision here that the estimated timber volume stated in the Skogi contract amounted to a warranty as to the quantity of timber available pursuant to that contract.

Plaintiff also contends that Section B2.4, said by defendant to be an effective and unambiguous disclaimer of any warranty

of timber quantity, is ineffective, alternatively ambiguous and therefore to be construed against defendant, and in any event unconscionable and as a matter of public policy not to be enforced so as to preclude liability to plaintiff.[16]

A

"In essence a warranty is an assurance by one party to an agreement of the existence of a fact upon which the other party may rely; it is intended precisely to relieve the promisee of any duty to ascertain the facts for himself. Thus, a warranty amounts to a promise to indemnify the promisee for any loss if the fact

---

[16] A claim for prejudgment interest pursuant to the Contract Disputes Act of 1978, 92 Stat. 2383, 41 U.S.C.A. § 601 et seq. (1980), asserted by way of amendment to the petition at trial, is deemed abandoned. Nossen v. United States, 189 Ct. Cl. 1, 18, 416 F.2d 1362, 1371 (1969). Cf. Monroe M. Tapper & Assoc. v. United States, 222 Ct. Cl. 34, 611 F.2d 354 (1979). Plaintiff's damages arguments are hereinafter treated.

warranted proves untrue." Dale Constr. Co. v. United States, 168 Ct. Cl. 692, 699 (1964); see also Paccon, Inc. v. United States, 185 Ct. Cl. 24, 31-32, 399 F.2d 162, 166-67 (1968); cf. Everett Plywood & Door Corp. v. United States, 190 Ct. Cl. 80, 90-92, 419 F.2d 425, 430-31 (1969)

Careful consideration of the relevant facts of this case leads to the conclusion that defendant did not warrant that plaintiff would be able to purchase, cut and remove 13,300 MBF of merchantable timber from the Skogi sale, that plaintiff was told to rely upon, and in fact did rely in substantial part upon, its own investigation of the proposed Skogi sale, and that in all the circumstances the estimated quantity of timber stated in the Skogi contract was not "the basis of the agreement" between plaintiff and defendant. Everett Plywood & Door Corp. v. United

States, supra, 190 Ct. Cl. at 94, 419 F.2d at 433.

Both the Skogi sale advertisement and the Skogi sale prospectus referred to estimated volumes of timber. The Skogi prospectus explicitly advised prospective bidders that the estimated timber volumes were not estimates of a purchaser's own recovery, and that prospective bidders should therefore examine the timber sale area and make their own recovery estimates. Plaintiff made such an examination and reached its own conclusions as to the available volume, and there is no proof that plaintiff's opportunity for examination of the timber sale area was inadequate. And, the timber sale contract covered the purchase and sale of "Included timber", of a total "Estimated quantity * * *" of 13,300 MBF. (Emphasis suplied.)

Moreover, plaintiff, with considerable experience in Forest Service timber sale contracts, was necessarily aware when it submitted a bid on the Skogi sale that the timber volume estimates in the Skogi sale prospectus and contemplated timber sale

contract were the product of a Forest Service cruise.[17] The final product of a cruise is no more than an estimate, based on a statistical sample, of probable timber value in a given area. Although cruisers strive for an estimate of volume within plus or minus 10 percent of actual scaled cutout, the process of cruising plainly does not lead to a precise and scientifically derived end result. Variations of more than plus or minus 10 percent were common. Cf. Russell & Pugh Lumber Co. v. United States, 154 Ct. Cl. 122, 128-29, 290 F.2d 938, 942 (1961). Indeed, in negotiations leading to the promulgation of Timber Sale Contract Form 2400-5, the Forest Service had rejected industry efforts to obtain a warranty of volume of plus or

---

[17] As noted above, plaintiff's pre-bid examination of the timber sale area had resulted in the conclusions that the cruise information in the Skogi sale prospectus appeared reasonable, and that the stated estimated volume "would be there."

minus 10 percent, and the industry in effect acquiesced insofar as sales such as this one (where timber to be cut was marked prior to sale advertisement) were concerned. The record does not reflect that plaintiff participated in or knew of such negotiations. In cases such as this, however, industry practice was plainly not to interpret Forest Service estimates of timber volume as guarantees, and that practice was both reasonable and relevant. And, within plaintiff's own experience, cruise estimates were frequently off by a substantial percentage, and underruns were the rule rather than the exception. In light of the foregoing, and even without the clear indications in the Skogi prospectus and contract that the stated timber volume estimates were just that, the conclusion that either plaintiff or defendant reasonably understood those estimates to be guarantees of timber volume would be

unjustified. Dale Constr. Co. v. United States, supra.

Plaintiff's assertion that the Skogi contract's estimated timber volumes were "coupled with the purchaser credit limit", and that, so "coupled", they somehow amounted to a warranty of volume, is also unpersuasive.

As held hereinabc e, the estimated timber volumes stated in the Skogi contract were not warranted. The contract provided clearly that the only method by which plaintiff could recover its road construction costs was by applying earned purchaser credits (to a stated purchaser credit limit) to stumpage payments (in excess of base rates) due from plaintiff for timber cut and purchased from the Skogi sale. The mere inclusion in the contract of the purchaser credit limit did not serve to convert estimated timber volumes into guaranteed ones.

The timber volume shortfall, together with the contract provisions that earned purchaser credits might be offset only against stumpage payments (in excess of base rates) due for timber cut and scaled, did result in plaintiff's inability to apply some $72,953.45 in earned purchaser credits to the purchase of timber under the Skogi contract. Plaintiff was necessarily aware of the contract limitations respecting use of earned purchaser credits, however, and the total estimated volumes stated were not guaranteed. Moreover, there was obviously a clear possibility, if not a probability, from the very outset that the Skogi contract would result in a timber volume underrun.

It must be concluded, on this record, that plaintiff assumed the risk volume cutout might be insufficient to enable it to offset the purchaser credits it expected to earn through road construction against

stumpage payments (in excess of base rates) up to the purchaser credit limit. That the risk materialized, and that plaintiff was thus not able to recover all of its earned purchaser credits, is not in itself a sufficient basis for holding that plaintiff is therefore entitled to recover damages for breach of warranty.[18]

In Everett Plywood & Door Corp. v. United States, supra, the court did hold that a warranty of quantity of timber was extended to the plaintiff by defendant. There, however, the contract and related documents all stated flatly that there was a total of 73,100 MBF of merchantable timber to be cut on the sale, and none of those documents "contained a disclaimer of warrantry as to quantity, or any cautionary language to the effect that prospective

---

18 A separate quantum meruit argument respecting earned purchaser credits is considered hereinafter.

purchasers should not rely on the defendant's cruise estimate." These (and other) factual differences[19] between Everett Plywood and this case serve to make the court's holding there entirely inapposite here.

Timber Investors, Inc. v. United States, supra, is also of no help to plaintiff. The holding in that case (involving Forest Service estimates of road construction costs) was plainly not that the Forest Service warranted the accuracy of such estimates. Indeed, the court there held that the plaintiff in that case bore, but had failed to carry, the burden of

---

19 Among others, an independent cruise of the timber offered for sale was a practical impossibility, and the Forest Service "must have assumed" that prospective bidders "would have to rely upon the accuracy of defendant's cruise." Everett Plywood & Door Corp. v. United States, 190 Ct. Cl. 80, 91, 419 F.2d 425, 431 (1969). Here, the Forest Service told plaintiff to make its own estimates of recovery, and plaintiff did examine the timber sale area.

proving that such estimates were "grossly or unreasonably inaccurate." Timber Investors, Inc. v. United States, supra, 218 Ct. Cl. at 423, 587 F.2d at 480. Plaintiff's interpretation of the holding in that case is an erroneous one.

In Timber Investors, the court did observe, by way of dictum, that contract provisions indicating that road construction cost estimates were "just that and were not to be considered as guarantees of any kind * * * standing alone would not insulate the government from liability if the contract estimates were so grossly erroneous as to indicate a failure to exercise reasonable care and diligence in arriving at said estimates." Even assuming the relevance of that dictum in the very different factual context of this case, plaintiff can derive no comfort therefrom.

Id., 218 Ct. Cl. at 415 n. 4, 587 F.2d at 475-76 n. 4.

Plaintiff cut from the Skogi sale a total of some 1,105 MBF of Douglas fir (some 895 MBF less than the estimated volume of Douglas fir stated in the Skogi contract, or a shortfall of 44.75 percent), and some 8,691 MBF of Pacific silver fir and other coniferous species (some 2,619 MBF less than the estimated volume of such species stated in the Skogi contract, or a shortfall of about 23 percent). The total shortfall was 3,514.17 MBF, or 26.4 percent of the total estimated volume of 13,300 MBF.

There was, in sum, a large, but not unprecedented, volume shortfall in connection with the Skogi contract. Why that shortfall occurred is not shown. It cannot fairly be concluded, however, that the Forest Service's timber volume estimates

in connection with the Skogi sale were inadequately or negligently prepared, not in good faith, or grossly or unreasonably inaccurate. That those estimates were not precisely accurate does not, in and of itself, confer on plaintiff a right to recover damages for the shortfall. Timber Investors, Inc. v. United States, supra; Womack v. United States, 182 Ct. Cl. 399, 414, 389 F.2d 793, 802 (1968);[20] Russell & Pugh Lumber Co. v. United States, supra; cf. Maurice Mandel, Inc. v. United States, 424 F.2d 1252, 1254 (8th Cir. 1970) (use of

---

[20] In Womack, the court stated that "Assuming that the bidder acts reasonably, he is entitled to rely on Government estimates as representing honest and informed conclusions." Id., 182 Ct. Cl. at 412, 389 F.2d at 801. Here, plaintiff relied at least in substantial part on its own examination of the timber sale area. Moreover, and in any event, defendant is not "required to be clairvoyant", but only "to base that estimate on all relevant information that is reasonably available to it". Id., 182 Ct. Cl. at 412-13, 389 F.2d at 801. No breach of that duty appears.

word "estimate" does not cast responsibility for gross miscalculation upon a bidder).

In this connection, different methods of measuring or estimating log diameters, and bucking logs to lengths differing from the lengths assumed in the cruise, may result in scale volumes differing from estimated cruise volume. Breakage and defects (hidden or otherwise) obviously may as well. And, sampling plots or areas of standing timber, on a 10 or 20 percent basis, and then extending the results to the entire area, clearly presents an independent potential for distortion of the resulting cruise estimate. Unexplained differences, even substantial ones, standing alone, do not establish negligence, bad faith, or gross or unreasonable error.

B

The conclusions just stated make it unnecessary to consider at any length

either the effectiveness vel non in the abstract of the provisions of Section B2.4 as a disclaimer of warranty of volume, or whether Section B2.4 is either ambiguous or unconscionable and as a matter of public policy not to be enforced so as to preclude defendant's liability to plaintiff. Section B2.4 does, however, deserve brief scrutiny.

Section B2.4 is captioned "Volume Estimate"; its first sentence provides as follows: "Listed in Table 1 are the estimated volumes of timber designated for cutting under B2.3 expected to develop * * *." (Emphasis supplied.) Consistently with the Skogi contract provisions and related documents, the focus of Section B2.4 is upon estimates, not warranties, of timber volume.

The second sentence of Section B2.4 relates to designation of timber after date

of sale advertisement, a factual situation not relevant here. The third, that "The estimated quantities stated in Table 1 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract" (emphasis supplied) is said by defendant to be effective and unambiguous; plaintiff asserts, however, that it is ambiguous; and that it was "reasonable for plaintiff to interpret the third sentence of B2.4 as being inapplicable to the Skogi timber sale contract."

Whatever else might be said respecting the assertion that the third sentence of Section B2.4 (in essence echoing the warning to bidders in the Skogi sale prospectus), is ambiguous, the factual assertion that in bidding plaintiff interpreted that sentence as inapplicable to the Skogi sale is neither supported by citation

to the record nor established by the proof.

Be that as it may, the holding that the Forest Service did not warrant or guarantee that plaintiff would cut and remove 13,300 MBF of timber from the Skogi sale does not depend upon a conclusion that Section B2.4, in and of itself, amounted to an effective and unambiguous disclaimer. In this case, the determination that no such warranty or guarantee was made is adequately grounded on other considerations, expressed above.[21]

In its reply brief, plaintiff devotes considerable attention to a recent holding in McGrew Bros. Sawmill Co. v. United

---

[21] The issue of unconscionability of Section B2.4 is not reached. Cf. Fraass Surgical Mfg. Co. v. United States, 215 Ct. Cl. 820, 830, 571 F.2d 34, 40 (1978) (Uniform Commercial Code Section 2-302 "is not intended to permit courts to redistribute risks allocated by differences in bargaining power, but rather to prevent oppression and unfair surprise.")

States, 224 Ct. Cl. ____ (1980), where the court denied cross-motions for summary judgment because of disputed material facts, and remanded the case for trial or other appropriate disposition. Parenthetically, the petition in that case was dismissed on plaintiff's motion, pursuant to Rule 102(a)(1)(ii), January 30, 1981.

In McGrew, the parties differed, as they do here, over the meaning and effect of "disclaimer" language in a Forest Service timber sale contract. Since the disposition of this case does not turn upon whether or not Section B2.4 was an effective and unambiguous disclaimer, in and of itself, plaintiff's arguments that under McGrew[22] Section B2.4 is ambiguous as

---

[22] The factual questions posed by the court in McGrew are relevant to the issues here, and to the extent permitted by the record they have been considered in reaching this opinion.

a matter of law require no further discussion.[23]

C

Plaintiff further contends that because of its inability to apply all of its earned purchaser credits by way of offset against stumpage payments (in excess of base rates) due from plaintiff for timber cut and purchased on the Skogi sale, violations of law and of regulations occurred, and that it is accordingly entitled to "compensation measured on a quantum meruit based upon an implied in fact contract that defendant agreed to pay the fair and reasonable value of the road

---

[23] Plaintiff's notion that there is some sort of "implied warranty", where timber is designated before cutting, that either a certain cutout will result or that additional timber will be designated for cutting, has no support in fact, law, or logic.

construction." In plaintiff's words, "the government was required to furnish sufficient timber to fully amortise the road." Section 535, Title 16, United States Code (1970), and 36 C.F.R. Section 221.7(c) (1970), are cited in support of this proposition.

As in force at the time here relevant, Section 535 provided simply that financing of forest development roads within National Forests administered by the Forest Service might be accomplished by, inter alia, "requirements on purchasers of national forest timber and other products, including provisions for amortization of road costs in contracts." 36 C.F.R. Section 221.7(c) provided that the estimated cost of construction of specified roads should be "deducted from stumpage payments made by or due from Purchaser under the timber sale

contract for other than minimum stumpage rates * * *."

No violation of either statute or regulations is apparent here. There were in substance provisions for "amortization" of road costs in the Skogi contract. That plaintiff could not fully apply earned purchaser credits to stumpage payments cannot properly be construed as a violation of Section 535. 36 C.F.R. Section 221.7(c) also does not mean that absent full application of earned purchaser credits to stumpage payments, there exists a monetary claim against the United States enforceable in this court for the amount of the earned purchaser credits not so applied.

Plaintiff's quantum meruit argument starts with the proposition that an express written contract in violation of law or regulations is invalid. Assuming, for

present purposes, the validity of that proposition, the conclusion that plaintiff is accordingly entitled to recover for its costs of road construction under the Skogi contract nonetheless fails. The connecting link between the proposition and the conclusion--i.e., plaintiff's contention that the Skogi contract unlawfully failed to provide that plaintiff might fully apply purchaser road credits to stumpage payments--does not withstand scrutiny.

III

Plaintiff is not entitled to recover. Accordingly, discussion of plaintiff's damage position may be largely pretermitted. It should briefly be noted, however, that there are grave deficiencies in plaintiff's approach to the matter of its asserted "damages for non-delivery of timber." Plaintiff's claim of damages of some $925,000, or, alternatively, some

$1,250,000, in consequence of the Skogi contract timber shortfall, rests on a considerable number of untenable assumptions. Even were defendant liable to plaintiff here, the claims as made could not be deemed valid.

CONCLUSION OF LAW

Upon the foregoing opinion and findings of fact set forth in the trial judge's report which are adopted by the court, the court concludes as a matter of law that plaintiff is not entitled to recover and the petition is dismissed.

APPENDIX B

FINDINGS OF FACT

1. (a) In this action, plaintiff, a corporation organized and existing under the laws of the State of Oregon, with principal place of business in Portland, Oregon, sues to recover damages for alleged breach of a 1969 timber sale contract (hereinafter described) between plaintiff and defendant, acting through the Acting Forest Supervisor, Mt. Hood National Forest, Region 6, United States Forest Service, Department of Agriculture (the Forest Service). Plaintiff principally contends that defendant breached a contractual warranty as to the timber volume to be cut, purchased, and removed from a timber sale (called the Skogi sale, and hereinafter described), and that plaintiff was damaged in the amount of approximately $925,000, or, alternatively, of approximately $1,250,000, by defendant's "non-delivery of timber."

(b) As of 1969, plaintiff was an experienced timber company. Its history in the timber business dated back nearly 50 years,[1] and it had had considerable experience in the purchase of timber from the Forest Service. Its principal business activity in and for some time after 1969 was log merchandising (the purchase, sale, and trading of logs), and in 1969 it was actively engaged in the business of exporting logs to Japan. As of 1969, plaintiff had on its books some 10 to 12 timber sales in various stages of activity. Its logging program developed about 70,000,000 board feet of timber per year at that time, and its annual sales volume in 1969 was on the order of $30,000,000.

---

[1] Although plaintiff had been incorporated only since 1958, the corporation resulted from reorganization of a family partnership that had been in existence for many years prior to 1958. At time of trial it was still a family-owned business.

(c) In and around 1969, plaintiff purchased timber from the Mt. Hood National Forest, the Gifford Pinchot National Forest, and northern districts of the Willamette National Forest.[2] Plaintiff also purchased so-called private timber, timber from "O and C" lands, administered by the Bureau of Land Management, in Clackemas County, Oregon, and timber from the State of Washington.[3] Plaintiff purchased a major portion of the timber it bought from the federal government.

---

[2] In his purported "summary" of the testimony of one witness for plaintiff, counsel for plaintiff was not entirely accurate. Although the witness agreed that the "summary" was "generally" (and then "specifically") correct, the weight of the credible evidence is as stated in finding 1(c)'s text.

[3] The Bureau of Land Management (BLM), the State of Washington, and private timber owners with whom plaintiff did business, did not guarantee timber volumes. The State of Washington did not guarantee recovery of road costs. Plaintiff has never built roads on a BLM timber sale; the evidence is silent as to road building on private timber sales.

(d) During the period 1969 to 1973 , plaintiff was engaged in the export timber market; it exported to Japan primarily so-called "white woods" (e.g., true firs, including Noble fir and hemlock). On occasion, at least, plaintiff traded Douglas fir logs for Noble fir, white fir, and hemlock, for export.

2. In 1969, the Forest Service advertised a proposed Mt. Hood National Forest timber sale (called the Skogi sale), and it also published a prospectus and a sample timber sale contract covering the contemplated Skogi sale.

3. (a) Prior to December 5, 1969, the Forest Service furnished to prospective timber purchasers, including plaintiff, the advertisement, the prospectus, and a bid form concerning the proposed Skogi sale.

(b) Among other things, the Skogi sale advertisement stated that the Forest

Service would receive sealed bids up to 9:00 a.m., December 2, 1969, for an estimated 13,300 MBF (thousand board feet) of timber marked or otherwise designated for cutting; that applicable "Purchaser road credits are $264,764.00"; and that full information concerning the timber, the conditions of sale, and submission of bids should be obtained from the District Ranger, Estacada Ranger Station, or the Forest Supervisor.

(c) The Skogi sale prospectus stated, among other things, that Timber Sale Contract Form 2400-5 would be used; that the sale area, and a sample timber sale contract, should be inspected before submitting a bid; that detailed conditions of sale were contained in the sample contract (which "is available for inspection" at a specified Forest Service office); and that full information on the

timber, conditions of sale, and bidding might be obtained at that office.[4]

(d) Paragraph 4, "Volume and Rates", of the Skogi sale prospectus stated an "Estimated Volume" of 2,000 MBF of Douglas fir, and of 11,300 MBF of Pacific silver fir and other coniferous species, and a "Total estimated volume" of 13,300 MBF.

(e) Paragraph 5, "Description of Timber", of the Skogi sale prospectus stated in part as follows:

SPECIES	LOG GRADES %			
	3P	SP	2S	3S
Douglas-fir	8.9	8.7	43.0	39.4
Pacific silver fir & other coniferous species			63.3	36.7

[4] The record does not establish that plaintiff sought any such information from the Forest Service prior to bidding on the Skogi sale.

(f) Paragraph 6, "Specified Roads", of the Skogi sale prospectus contained a description of the "Specified Roads" to be constructed by the purchaser of the Skogi contract, and provided that "Applicable road credits up to the amount shown in the table below will be credited to Purchaser's Timber Sale Account as roads are constructed and accepted. Purchaser road credits may only be applied to timber charges in excess of timber value at Base Rates." The sum of the amounts shown in the "table below" was $264,764.[5]

(g) Paragraph 10, "Inapplicable Standard Provisions", of the Skogi sale

---

[5] The Skogi prospectus indicated that (assuming full cutout of the estimated timber volume) timber value (above base rates) to apply to stumpage payments would exceed $264,764 by some $2,000. Timber value (above base rates) at the Skogi contract award prices (again assuming full cutout) was some $307,000.

prospectus expressly provided that Section B2.41, "Adjustment for volume deficit", of Division B ("Standard Provisions") of Timber Sale Contract Form 2400-5, would not be applicable to the Skogi sale.[6]

(h) Paragraph 15 of the Skogi sale prospectus indicated, in substance, that a total volume of 7,900 MBF of timber from the Skogi sale would be "exempt from domestic manufacturing requirements", and thus could be exported.

(i) Paragraph 16, "General", of the Skogi sale prospectus stated, among other things, that volume, quality, and operating cost estimates were those used in the appraisal to determine minimum acceptable prices, that additional information on details was on file with the Forest Service

---

[6] Three other sections of Division B were also made inapplicable.

and available for inspection, that the information in the prospectus "is made available with the understanding that costs and values shown are not estimates of a purchaser's own costs or recovery estimates", and were not a part of the timber sale contract, and that, for "these reasons, bidders are urged to examine the timber sale area and the sample Timber Sale Contract and make their own cost and recovery estimates."[7]

(j) There is no evidence that the provisions contained in the Forest Service sample timber sale contract available to prospective bidders on the Skogi sale either differed in any material way from

---

[7] The record is silent as to the length of time available to plaintiff to examine the timber sale area and make its own estimate of timber recovery.

the information in the Skogi sale prospectus, or were in any way revised prior to award of the Skogi contract to plaintiff.

4. (a) Cruising is the process by which the volume of merchantable timber (in board feet) in a given area is estimated.[8] The record contains references to "fixed plot" cruising, and to "prism area" or "variable plot" cruising utilizing a "basal area factor". In any method of cruising, however, the final product is no more than an estimate, based on a statistical sample, of probable timber volume in a given area.

---

[8] It is fair to infer from the record that the process involves selection of sample areas or plots, an estimate of gross volume on those areas or plots, estimates of defects and of breakage, extension of the sample results to the whole, and resulting estimate of net merchantable timber. In the area here relevant, 10 or 20 percent sampling is deemed suitable. Human or statistical errors at any part of the process affect the validity of the ultimate conclusion.

Within both the Forest Service and the timber industry generally, cruisers strive for an estimate of volume within plus or minus 10 percent of the actual scaled cutout from a given area, and a cruise within those parameters is generally deemed an accurate one.

(b) Prior to the promulgation by the Forest Service of Timber Sale Contract Form 2400-5 (on which the Skogi contract was prepared), the Forest Service had engaged in prolonged negotiations with a committee sponsored by the National Lumber Manufacturers Association concerning the contents of a proposed new timber sale contract. In the course of those negotiations, the Forest Service considered, and rejected, an industry proposal that the Forest Service "warrant" within 10 percent the final net volume of timber to be cut

pursuant to a Forest Service timber sale contract. During the negotiations, the industry changed its position, in substance abandoning its request for a guarantee of volumes within 10 percent in the case of timber sales (such as the Skogi sale) for which the marking of timber was completed prior to sale.[9]

(c) Plaintiff's actual experience in some two dozen Forest Service timber sales awarded to it between June 30, 1969 and April 27, 1973, on the Mt. Hood and Gifford Pinchot National Forests is in the record. A comparison of estimated volume with removed volume on such sales indicates

---

[9] The record does not reflect that plaintiff participated in or knew of the industry-Forest Service negotiations. In cases such as this one, however, industry practice was plainly not to interpret Forest Service estimates of timber volume as guarantees of cutout, and that practice was a reasonable one.

some overruns and much more frequent underruns, with the underruns frequently exceeding 25 percent of estimated volume; indeed, some underruns approached 50 percent of estimated volume.[10] Even taking into account the several overruns plaintiff experienced on such sales, the sum of the underruns exceeded 13 percent of the sum of the estimated volumes.[11]

5. Prior to bidding on the Skogi sale, the head of plaintiff's forestry department and some of his staff spent a

---

[10] One witness for plaintiff, with wide experience in the timber industry, testified that his company had experienced 30 to 40 percent overruns and underruns of Forest Service timber sale contracts, and that the Forest Service could "miss * * * pretty badly" on certain sales.

[11] There is no evidence that plaintiff commenced any other litigation in consequence of contract underruns. In every such contract save the Skogi contract, however, plaintiff was able to recover its earned purchaser credits for road construction.

total of about six man-days examining the Skogi sale area.[12] As a result, it was concluded that the timber on that area was of a type of interest to plaintiff, that the cruise information on the Skogi sale prospectus appeared reasonable, and that from an "overview" to determine export volume there was probably sufficient Noble fir on the Skogi sale area to "take the major portion of the export allocation on the sale." The volume available for domestic sale was also considered, and it was concluded that the estimated volume "would be there." The precise method by

---

[12]At that time, plaintiff had several employees whose duties included "looking at" prospective sales. Plaintiff "could cover" a considerable number of prospective sales each year, and it in fact examined intensively an unspecified number of prospective sales each year.

which that conclusion was reached is not clear from the record.[13]

6. (a) As in force in 1975, Section 2431.23, "Sale Volume Determination", Forest Service Manual,[14] provided in part as follows:

> Determination of the timber volume to be cut from the sale area will be carefully made, since a prospective purchaser should reasonably expect to base his operating plans and cost estimates on such figures. Accurate quality estimates are also essential if the appraisal is to properly reflect the timber value. * * * Regional Foresters will specify

---

[13] Gwynne H. Sharrer, plaintiff's expert witness on damages, testified that he utilized (among other things) "cruise information * * * from the original cruise by Caffall Brothers" in his calculations, and that he thought plaintiff's "cruise" identified both species and volume. That "cruise" is not in evidence.

[14] The record does not establish that these provisions of the Forest Service Manual were in force as of 1969. Cf. 36 C.F.R. Part 221 (1970). Nor does it reflect any reliance by plaintiff on such provisions in submitting a bid on the Skogi sale.

> procedures to be used for sale volume determination. * * * [T]hey should be alert to new methods of sampling and volume determination and should promptly adopt new methods which will improve efficiency or accuracy. Sufficient documentation of the volume and quality determination is needed to assure the officer authorized to make the sale and the prospective purchaser that the field work has been done carefully and the data handled carefully.

(b) Section 2431.23 aside, the record establishes that as of 1969, and for a number of reasons, prospective timber purchasers attached considerable importance to, and frequently relied upon, information contained in Forest Service timber sale appraisals, advertisements, prospectuses, and sample timber sale contracts (including Forest Service volume estimates) in bidding on a proposed Forest Service timber sale.[15] The number of proposed timber sales at any

---

[15] Cruising is part of the timber appraisal process. Among other things, a cruiser seeks to arrive at an estimate of probable timber volume and grade.

given time, the availability of employees to examine such sales, the amount of time available for such examinations, and the cost of reaching independent conclusions, were factors affecting (and which might result in) a prospective purchaser's dependence on Forest Service "field findings".

(c) Although there is testimony in the record that plaintiff relies "pretty considerably" on Forest Service estimates of volume[16] in deciding whether to bid on a forthcoming Forest Service timber sale, that plaintiff relied "to a high degree"[17] on such estimates in bidding on the Skogi

---

[16] The stated reason for such reliance was that, with so small a crew as plaintiff had, there was "no way * * * you could cover all of these sales."

[17] The quoted words appear in a leading question by counsel for plaintiff. Much of plaintiff's reliance testimony was thus elicited.

sale, and that all of plaintiff's cost estimates having to do with per thousand costs were based on Forest Service estimates of volume, the weight of the credible evidence does not establish that plaintiff relied exclusively, or even primarily, on Forest Service estimates of volume (and of grade and species) in deciding to bid on the Skogi sale. See finding 5. The weight of the credible evidence is, rather, that plaintiff's own investigation of the Skogi sale area, in conjunction with the Forest Service estimate of volume, underlay that decision.

7. Following the examination described in finding 5, plaintiff submitted a timely bid on, and on December 5, 1969, was awarded, Timber Sale Contract 02085-3 (hereinafter Contract 02085-3 or the Skogi contract). The said contract was awarded after public bidding.

8. (a) The Skogi contract (prepared on Forest Service Timber Sale Contract Form 2400-5, July 1965, as amended) contained three "Divisions: A - Specific Conditions, B - Standard Provisions, and C - Special Provisions, together with Sale Area Map * * *" and related drawings, specification, and attachments. Division A, Specific Conditions, and Division B, Standard Provisions, of the Skogi contract are in evidence.

(b) Pursuant to the Skogi contract, defendant agreed to sell and permit plaintiff to cut, and plaintiff agreed to purchase and cut, "included timber" in eight clearcutting units covering 177 acres, more or less, located in the Estacada Ranger District, Mt. Hood National Forest, Oregon.

(c) The Skogi contract contained a termination date of March 31, 1973. That termination date was, at plaintiff's

request, subsequently extended to July 15, 1973.[18]

9. (a) Section A2, "Volume Estimate * * * applicable to * * * B2.4"[19] of the Skogi contract provided in pertinent part as follows:

Species and Product	Estimated Quantity and Unit of Measure M bd ft.
Douglas-fir logs and peeler blocks	2,000
Pacific silver fir and other coniferous species of logs	11,300
Total	13,300

(b) Section A5, "Timber Payment Rates * * * For Species * * * to be Paid for at Flat Rates Without Escalation", and incorporating a unit of measure of "M bd ft.", provided in pertinent substance as follows:

---

[18] The "Normal Operating Season" was contractually defined as from June 1 to

[19] See finding 10(a), infra.

Species***	Rates per Unit of Measure: Base	Adver-tised	Bid Premium	Bid
Douglas-fir logs and peeler blocks	$3.00	$23.75	-	$23.75*
Pacific silver fir and other coniferous species of logs	2.00	21.95	$3.55	25.50

* Advertised at a fixed rate.

(c) The Skogi contract defined the terms included in Section A5 as follows:

(1) Base rates were "the lowest rates of payment for timber * * * authorized by this contract";

(2) Advertised rates were

(footnote 18 cont.)

November 30. On July 13, 1972, at plaintiff's request, the Forest Service extended the contract termination date because deep snow had prevented operations from November 25, 1971 to July 10, 1972. The record fails to indicate that the remaining volume of timber to be cut was even considered by the Forest Service when it decided to grant this extension.

"the minimum acceptable Bid Rates for timber * * *";

(3) Bid premium rates were "the amounts by which Purchaser's bid is in excess of Advertised Rates * * *"; and

(4) Bid rates were "the rates bid by Purchaser * * * and are the sum of Advertised Rates and Bid Premium Rates."

(d) Section A9, "Specified Roads", and Table 1, Section A10, "Estimated Development Costs", of the Skogi contract in substance required the construction (or reconstruction) by plaintiff of several "specified roads", and specified a "purchaser credit limit" of $264,764 for such construction (and reconstruction).

(e) Section A23, "Inapplicable Standard Provisions" indicated that Section B2.41, "Adjustment for Volume Deficit" (among others) was "hereby made inapplicable."

10. (a) Section B2.4, "Volume Estimate", of the Skogi contract provided as follows:

> Listed in [Section A2] Table 1 are the estimated volumes of timber designated for cutting under B2.3, expected to develop under the Utilization Standards stated therein. If Sale Area Map indicates there are subdivisions where timber designation is to be done after date of sale advertisement, the objective of the Forest Service shall be to designate for cutting under B2.3 the approximate estimated volume by species or species groups stated in Table 1. The estimated quantities stated in Table 1 are not to be construed as guarantees or limitations of the timber volumes to be designated for cutting under the terms of this contract.

Under the Skogi contract there were no subdivisions where timber designation was to be done after date of sale advertisement.[20] The record does not establish that

---

[20] Section B2.41, "Adjustment for Volume Deficit", providing in part that "If Sale Area Map indicates there are subdivisions where timber designation is to be done after date of sale advertisement, and if error in volume estimate will cause (a) the volume cut to be less than 90 percent of

in bidding plaintiff interpreted the third sentence of Section B2.4 as being inapplicable to the Skogi contract.

(b) Section B4.22, "Purchaser Credit", of the Skogi contract provided in pertinent effect that plaintiff would become entitled to "Purchaser Credit" by construction of the "Specified Roads" and other development facilities listed in Division A of the contract. Section B4.22 further provided that "'Purchaser Credit Limit' is the maximum amount of credit that can be recognized hereunder for road construction * * *."[21]

(Footnote 20 cont.)

the total estimate shown in Table 1 or (b) Purchaser Credit to exceed its possible use, Forest Service, in response to request by Purchaser, shall designate additional timber within Sale Area", with such additional amount to be "limited to that estimated necessary to reach approximately the volume estimate by species in Table 1", was explicitly made inapplicable to the proposed Skogi sale.

[21] The purchaser credit limit originally stated in the Skogi contract ($264,764) was

(c) Section B4.2, "Timber Sales Account", provided in pertinent substance that "Charges for timber cut will be made when Forest Service prepares and furnishes to Purchaser periodic statements of volume and value of timber cut and scaled", and that "Charges against Purchaser Credit shall be limited to timber value in excess of Base Rates." In effect, the Skogi contract granted purchaser credits to plaintiff for completed road construction (to a stated maximum amount)[22] and permitted offset of earned purchaser credits against stumpage payments, in excess of base rates, due from plaintiff for timber

(Footnote 21 cont.)

subsequently increased to $299,883 as a result of Forest Service design changes. Plaintiff's total earned purchaser credits were $299,883.

[22] Purchaser credit limit "shall never be in excess of the total estimated cost of the listed roads or road segments actually constructed." Section B4.22.

cut and scaled; under the Skogi contract, base rates were to be paid in cash, not by the use of earned purchaser credits.

(d) The parties have stipulated that the Skogi contract provided that 7,900 MBF of timber was exempt from requirements for primary processing within the United States, and that such exempt volume was therefore available to be sold for export in log form.

11. (a) Plaintiff began logging the Skogi sale in 1970. By October 23, 1972, all work under Contract 02085-3 save logging and cleanup of Unit 8, stream cleanout in Unit 6, and final road maintenance, had been completed. Put another way, seven of the eight clearcutting units specified in the Skogi contract had been logged by October 1972.

(b) None of the seven clearcutting units logged in or prior to 1972 yielded as much timber as the Forest

Service's appraisal had indicated. The record also reflects that by or before the end of 1972, plaintiff was aware that it was experiencing a substantial volume underrun on the Skogi sale, and that it knew, or should have known, that the final cutout volume from the Skogi sale would fall far short of estimated volume.[23]

(c) During the period here relevant, plaintiff's secretary-treasurer was responsible for keeping track of the written "evidence of what was taking place on the ground" on timber sales, and thereby derived knowledge of what was "actually

---

[23] The exact amount of the underrun, in terms of board feet, could not be determined until after the completion of all logging on the Skogi sale. As of October 1972, however, only Unit 8, with an estimated volume of 985 MBF, remained to be logged. The actual underrun on the Skogi sale was more than 3-1/2 times that volume. Plaintiff clearly knew in 1972 that it was not recovering "the cruise volume", and at least should have then known that it would not do so, and by a substantial volume. Parenthetically, Unit 8, logged in 1973, yielded only 344.7 MBF.

going on on the ground." Cutting reports were prepared on a monthly basis, and plaintiff's secretary-treasurer was aware of the volume cut as those reports reached plaintiff. Although the record contains no comparison of the volume cut from Units 1 through 7 with the Forest Service's estimated volume for those seven units, it is reasonable to infer from the record, and particularly from the magnitude of the existing shortfall in October 1972 (when only Unit 8 remained to be logged) that plaintiff was or should have been aware, well prior to October 1972, that there would be a considerable undercut (if in a then indeterminable number of board feet) from the Skogi sale as a whole.[24]

---

[24] As of the end of 1972, no unit had yielded the estimated cruise volume for that unit. Plaintiff maintained timber volume record by year, and surely knew which units it had logged during any year. Moreover, plaintiff employed a logging manager whose job responsibilities included periodically

(d) Logging on the Skogi sale was completed by June 30, 1973. Plaintiff's actual gross volume from the Skogi sale was 10,117 MBF. The net merchantable volume of timber actually cut, removed, and paid for by plaintiff pursuant to the Skogi contract was 9,785.83 MBF. The underrun or deficit between that volume and the estimated volume of 13,300 MBF was 3,514.17 MBF, or 26.4 percent of the estimated volume. The Douglas fir cutout was approximately 1,105 MBF, some 895 MBF Less than the estimated volume for that species stated in the Skogi contract, or a shortfall of 44.75 percent. The Pacific silver fir and other coniferous species cutout was about 8,691 MBF, some 2,619 MBF less than the estimated volume for such species stated in that contract, or a shortfall of about 23 percent.

12. (a) Plaintiff's total earned purchaser credits pursuant to the Skogi

12. (a) Plaintiff's total earned purchaser credits pursuant to the Skogi contract were $299,883. Because the Skogi contract permitted offset of earned purchaser credits only against stumpage payments (in excess of base rates) due for timber cut and scaled, and because of the volume underrun described in finding 11(d), plaintiff was not able to apply earned purchaser credits of $72,953.45 to the purchase of timber pursuant to the Skogi contract.[25] The said earned but unused purchaser credits have not been paid to plaintiff by the Forest Service.

(b) Plaintiff performed its road construction (and reconstruction, contractually defined as included within construction) obligations under the Skogi

---

[25] Plaintiff was able to apply earned purchaser credits of $226,929.55 to the purchase of such timber.

contract to the satisfaction of the Forest Service.

(c) Plaintiff's actual cost of construction of specified roads pursuant to the Skogi contract was some $323,341.[26] Under the terms of the Skogi contract, the sole method by which plaintiff might recover its road construction costs was by application of earned purchaser credits (to a maximum of $299,883) against stumpage payments (above base rates) due from plaintiff for timber cut on the Skogi sale. Had plaintiff cut, removed, and paid for the entire volume of timber (13,300 MBF) estimated by the Forest Service as being included within the Skogi sale at the bid rates for such timber contained in the

---

[26] As it did here, the actual cost of road construction pursuant to Forest Service timber sale contracts frequently exceeds the Forest Service's estimated cost of road construction. Plaintiff, at least, regards such excess costs "almost like a logging cost".

Skogi contract, plaintiff would have been able to apply purchaser credits it earned pursuant to the Skogi contract to the stumpage payments for such timber. Virtually all of that estimated volume would have had to be cut and removed, however, for plaintiff to be able to apply all of such earned purchaser credits to stumpage payments.[27].

(d) A "deficit sale" is a proposed timber sale which does not have sufficient value (at advertised rates) to permit a prospective purchaser to realize a normal profit as calculated under the Forest Service's appraisal system. In such a situation, the Forest Service puts prospective buyers on notice, at the time

---

[27] There is testimony that had there been no underrun on the Skogi contract, some $307,000 in timber values above base rates would have been available (subject to the Skogi contract's purchaser credit limit of $299,883) to apply against stumpage payments due.

of advertisement of the proposed sale, that it estimates there will be an insufficient value of timber (at advertised rates) to permit crediting the purchaser's timber sale account for the total estimated cost of specified road construction. The Skogi sale was not a deficit sale.

(e) The proposed Skogi sale was cruised by two Forest Service cruisers in August 1968. During the period here relevant, all Forest Service timber sales in Region 6 had to be certified by a cruiser certified by the Forest Service. Such cruisers were check cruised, on a random basis, periodically throughout a given year. There is no evidence that the Forest Service did not comply with that policy on the Skogi sale.

(f) There is no evidence that between 1969 and 1973 the Forest Service changed its methods of cruising timber in connection with contemplated timber sales.

13. The record justifies the inference that, at the time the Skogi contract was awarded to plaintiff, neither plaintiff nor the Forest Service expected that plaintiff would experience an underrun of the magnitude plaintiff actually encountered, or expected that plaintiff would be unable to utilize a substantial portion of its earned purchaser credits in payment for stumpage. There is no sound evidentiary basis for finding, however, that the basis for the bargain between the parties was a guarantee by defendant that plaintiff would experience a 100 percent timber volume cutout on the Skogi sale. See findings 4, 5, 6(c).

14. The record does not reflect why there was a 26.4 percent shortfall in timber on the Skogi contract.[28] The record

---

[28] Defendant's proposals that different methods of measuring or estimating log diameters, and bucking logs to lengths

also fails to establish, however, that the Forest Service's timber volume estimates in connection with the Skogi sale were inadequately or negligently prepared, not in good faith, or grossly or unreasonably inaccurate.[29] The record shows simply that there was a large (but not unprecedented) shortfall, not why the Forest Service estimate of the Skogi sale timber volume exceeded the timber volume actually cut and removed from that sale to the extent it did.

(Footnote 28 Cont.)

differing from the length assumed in a cruise, may result in scale volume differing from estimated cruise volume, have an evidentiary foundation. In and of themselves, however, they do not really explain a 26.4 percent shortfall.

[29] Plaintiff's plus or minus 10 percent cruise accuracy testimony does not establish otherwise. The record shows plainly that cruise estimates of timber volume frequently do not fit within those rather narrow parameters. Moreover, failure to achieve a desirable standard of cruise accuracy does not, in and of itself, demonstrate inadequacy, negligence, bad faith, or gross or unreasonable inaccuracy in the cruise effort.

15. In its appraisal and administration of timber sales, the Forest Service utilizes cruise information to a considerable degree. The accurate reflection of timber values is dependent upon an accurate cruise estimate, and, during the administration of a timber sale, the cruise volume estimate may be used, e.g., with respect to brush disposal, relief for catastrophic damage due to a non-negligent fire, erosion control, or damages for purchaser failue to cut timber, and is used in determining the amount of payment bond (or advance deposits).[30] In some instances, at least, the Forest Service may

---

[30] The record contains printouts for the periods May 1-31, 1973, and June 1-30, 1973. These printouts indicate that, as of May 31, 1973, there was a "payment guarantee" of $15,000, and that, as of June 30, 1973, there was a "payment guarantee" of $20,000. The significance of these two figures in terms of the issues of this case is, however, not established by the record. Plaintiff's inference that they indicate the Forest Service thought that at the end

subtract cutout from original cruise volume to reach an estimate as to remaining volume, but the frequency of utilization of this technique is not clear. The record does reflect, however, that the Forest Service did not revise its original estimate of timber volume on the Skogi sale during the period 1969-73.

16. At the time of contract award, plaintiff was of the opinion that it could cut from the Skogi sale sufficient timber to permit it to recover all or most of the Skogi contract's estimated costs of road construction.[31] The record does not

(Footnote 30 cont.)

of June further timber remained to be cut on the Skogi sale is not warranted by the proof.

[31] This opinion necessarily rested in part on plaintiff's examination of the Skogi sale area, and not on the estimated volume in the Skogi contract alone. There is testimony which, if wholly accepted, would justify removal of the words "or most" from this finding. In view of findings 4 and 12(c), however, that testimony must be discounted.

satisfactorily establish that in the event of a shortfall in timber plaintiff expected that the Skogi contract would be amended by the addition of a sufficient volume of timber so as to permit it to exhaust earned purchaser credits by way of offset against stumpage payments above base rates. See findings 17, 18.

17. By letter, dated July 30, 1973, to the Forest Service, plaintiff stated, among other things, that the Skogi sale had expired July 15, 1973, that the total "purchaser credits earned" was $299,883, and that "the volumes removed produced road credits of $226,929.55, which results in a deficient allowance for our road construction of $72,953.45." Plaintiff requested payment of "our unamortised costs of building these roads in the amount of $72,953.45", but stated that it "would be willing to accept an additional volume of

timber from the Skogi sale in lieu of cash."

18. By letter, dated July 31, 1973, to plaintiff, the District Ranger, Estacada Ranger District, stated that there were no "contractual provisions for the payment of" plaintiff's $72,953.45 claim, and that it was "not possible to give you additional timber from the area". The District Ranger suggested that plaintiff communicate with the Supervisor's office with respect to the matter.

19. By letter, dated September 10, 1975, to plaintiff's attorney, the Forest Supervisor, in response to a letter and "petition" from plaintiff's attorney, stated in part as follows:

> 1. There are no specific contract provisions for administrative adjustment of such claims.

2. The Forest Service timber sale contract does not warrant, or guarantee, any specific volume of timber stated in the contract.

3. The Government has been provided with an improvement by the Purchaser, for which the Purchaser has not received complete remuneration under the purchaser credit provisions of the contract.

4. Volume underrun on the sale was of an unusual degree, with no evidence in the record to give any reason for this substantial deviation from the estimate.

5. Purchaser credit availability was recognized to be limited on this sale by that a portion of

the road costs were covered by supplemental appropriated funds rather than purchaser credit. In consideration of these points and recognizing your contentions, we see no avenue for administratively settling any claim under this timber sale contract.

20.

Plaintiff sold on the export market 6,209 MBF of timber (for the most part white woods, and primarily Noble fir, a species preferred by the Japanese over other white woods because it yields vertical clear lumber), from the Skogi sale.[32]

---

[32] Plaintiff had an arrangement with a Japanese company covering all of its export output of timber. Although the Skogi sale produced 9,785.83 MBF of merchantable timber, and according to plaintiff's testimony, a total of 8,681 MBF of Pacific silver fir and other coniferous species, plaintiff did not utilize the remainder (1,691 MBF) of its 7,900 MBF export exemption on the Skogi sale. Not all of the 8,681 MBF, however, was of export quality.

Although the export market has varied from time to time in terms of both quality requirements for logs in the Japanese market and the kinds of woods that can be exported to Japan, true firs, or white woods, have been for the most part in greatest demand in that market. Douglas fir (not a true fir) has been salable at times, but from the standpoint of a Japanese purchaser of timber to be exported to that country, Douglas fir was generally less desirable than true fir.

21. The Skogi sale yielded 6,097 MBF of Noble fir (or 62.3 percent of the actual cutout volume from the sale), 2,584 MBF (or 26.4 percent) of what plaintiff terms "Hemlock and other" timber, and 1,105 MBF (or 11.3 percent) of Douglas fir. Of the Noble fir cut and removed from the Skogi sale, some 72 percent was of export quality and was exported. The record does not

establish that, had there been no shortfall in volume cutout on the Skogi timber sale (i.e., had 13,300 MBF of timber been available from that sale), the percentages of cutout by species would have remained the same as those derivable from the actual cutout volume of 9,785.83 MBF. Nor does the proof establish that the quality of the so-called "missing" volume (if available) would have been the same as that of the timber actually cut and removed from the Skogi sale.

22. Plaintiff made a net profit (before taxes) of $61,752.46 from the Skogi sale. Had plaintiff been able to use the full amount of its earned purchaser credits on the Skogi sale, that net profit would have been increased by $72,953.45, to a total of $134,705.91. Had plaintiff been able to cut, remove and sell from the Skogi sale the estimated volume of timber (13,300

MBF) stated in the Skogi contract, it is reasonable to conclude that plaintiff's net profit, before taxes, would have exceeded $134,705.91.

23. Forest Service Timber Sale Contract Form 2400-5, utilized in the preparation of the Skogi contract, was prepared by the Forest Service following prolonged negotiations with representatives of the forest industry. During the period 1969 to 1973, plaintiff was a member of the Industrial Forestry Association. That association participated to some degree in such negotiations with the Forest Service. There is, however, no evidence that plaintiff was cognizant of, took any part in, or was ever made aware of the results of, any such negotiations.

24. (a) During the period 1969-73, timber prices in the Pacific Northwest were far from stable. The record does not

permit any precise determinations of variations in timber prices for all species here relevant from time to time throughout that period. It does contain general testimony that from 1971 through 1973 there was a "steady rise in the Japanese market", and that in general, timber prices had increased over the period as a whole. The credible evidence is, however, that for particular grades of Noble fir, average prices derived from Industrial Forestry Association quarterly reports of log sales within the Columbia River District generally fluctuated upward and downward within a relatively narrow range through the end of 1972, that beginning in the first quarter of 1973 export prices soared (and then declined sharply from second quarter 1973 highs), that domestic prices for some grades rose slightly in 1973, and that domestic prices for other grades rose and then declined that year.

(b) The record reflects that, in the fourth quarters of 1971 and 1972, plaintiff sold "export" logs from the Skogi sale for $109 and $114 per MBF, respectively, and domestic logs from that sale for $77 and $68 per MBF, respectively. Utilizing selected sales invoices covering sales by plaintiff during the period June to August 1973, plaintiff computed selling prices of $650 per MBF for export quality Noble fir, of $200 per MBF for domestic quality Noble fir, of $450 per MBF for export quality "Hemlock & Other", of $200 per MBF for domestic quality "Hemlock & Other",and of $250 per MBF for domestic quality Douglas fir.

25. (a) The record contains a considerable amount of evidence respecting the damages assertedly due plaintiff for "non-delivery of timber". In the opinion which accompanies these findings, it is

concluded that plaintiff is not entitled to recover herein. Accordingly, detailed treatment of the proof on quantum is deemed unnecessary. Since, however, there are grave difficulties with plaintiff's position on damages in any event, the matter of damages will briefly be treated in findings 25(b) and 25(c).

(b) Plaintiff's evidentiary attempt to establish its "damages for non-delivery of timber" has as its foundation a considerable number of assumptions: among them are (a) that plaintiff had an absolute right, under the Skogi contract, to the entire "estimated quantity" of 13,300 MBF of timber stated in Section A2 of that contract;[33] (b) that the 26.4 percent volume "shortfall" should be allocated, with respect to both species and quality, on the basis of an estimate (not

---

[33] Compare finding 4.

established by the record as valid) or on the basis of plaintiff's experience with the timber cut and removed from the Skogi sale;[34] and (c) that timber prices as of July 15, 1973 (or prices derived from selected June-August 1973 sales invoices) should be utilized in the computation of the fair market value of the "missing volume".[35]

---

[34] Plaintiff's expert on damages ostensibly utilized plaintiff's pre-sale "species estimate" in his allocation of "missing volume" by species; the validity of that species estimate is not established by the record. Plaintiff's secretary-treasurer apparently utilized that same process. The allocation of species by quality (domestic or export) was apparently "Based on Export Quality Contained in the Volume Cut."

[35] See Uniform Commerical Code Section 2-713. Plaintiff's factual assertion that it did not realize the Skogi sale would undercut until May or June 1973 is not a proper one. Finding 11. To put it simply, there is no sound reason for calculating fair market value as of mid-1973. It is clear that not all of the "missing volume" (or even much of it) would have been sold at that time had the estimated volumes been available from the Skogi sale. Plaintiff's

(c) Assuming plaintiff's entitlement to recover, the record does not provide any basis for determining with any reasonable degree of accuracy the extent to which plaintiff may have been monetarily damaged by defendant's "non-delivery of timber." With respect to earned but unused purchaser credits, a cutout of all, or virtually all, of the estimated volume of 13,300 MBF would have been required for plaintiff to be able to utilize such purchaser credits (findings 12(c), 13). A 100 percent cutout, however, could not reasonably have been expected at the time of contract award[36] (finding 4). Assuming defendant's liability to plaintiff for a

(Footnote 35 cont.)

alternative "comparable sales approach" to damage calculations rests on a very few sales in the third quarter of 1973, and is not a valid basis for such calculations.

[36] Underruns were "the rule rather than the exception." See also finding 4(b).

portion of plaintiff's earned but unused purchaser credits, the amount of any such liability cannot be determined with any reasonable certainty.[37] With respect to the fair market value of the "missing volume", plaintiff's allocations by species and quality cannot be accepted as established, on this record, and there is in any event no proof of the fair market value of the "missing volume" as of the fourth quarter of 1972, by which time plaintiff plainly knew, or at the very least should have known, of the shortfall in timber here alleged as a breach of contract. Moreover, as noted above, a 100 percent cutout could not reasonably have been expected at the time of contract formation.

---

[37] Base and bid rates for Douglas fir and other species varied. Proof of proper allocation of "missing volume" between Douglas fir and Pacific fir and other coniferous species is also lacking here.

CONCLUSION OF LAW

Upon the findings and foregoing opinion, which are adopted by the court, the court concludes as a matter of law that plaintiff is not entitled to recover and the petition is dismissed.

APPENDIX C

16 U.S.C. § 475. Purposes for which national forests may be established and administered

All public lands designated and reserved prior to June 4, 1897, by the President of the United States under the provisions of section 471 of this title, the orders for which shall be and remain in full force and effect, unsuspended and unrevoked, and all public lands that may hereafter be set aside and reserved as national forests under said section, shall be as far as practicable controlled and administered in accordance with the following provisions. No national forest shall be established, except to improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United

States; but it is not the purpose or intent of these provisions, or of said section, to authorize the inclusion therein of lands more valuable for the mineral therein, or for agricultural purposes, than for forest purposes.

June 4, 1897, c. 2, § 1, 30 Stat. 34.

16 U.S.C. § 476. Sale of timber

For the purpose of preserving the living and growing timber and promoting the younger growth on national forests, the Secretary of Agriculture, under such rules and regulations as he shall prescribe, may cause to be designated and appraised so much of the dead, matured, or large growth of trees found upon such national forests as may be compatible with the utilization of the forests thereon, and may sell the same for not less than the appraised value in such quantities to each purchaser as he

shall prescribe, to be used in the State or Territory in which such timber reservation may be situated, respectively, but not for export therefrom. Before such sale shall take place notice thereof shall be given by the said Secretary of Agriculture for not less than thirty days, by publication in one or more newspapers of general circulation, as he may deem necessary, in the State or Territory where such reservation exists. In cases of unusual emergency the Secretary of Agriculture may, in the exercise of his discretion, permit the purchase of timber and cord wood in advance of advertisement of sale at rates of value approved by him and subject to payment of the full amount of the highest bid resulting from the usual advertisement of sale. He may, in his discretion, sell without advertisement, in quantities to suit applicants, at a fair appraisement, timber

and cord wood and other forest products not exceeding $2,000 in appraised value. In cases in which advertisement is had and no satisfactory bid is received, or in cases in which the bidder fails to complete the purchase, the timber may be sold, without further advertisement, at private sale, in the discretion of the Secretary of Agriculture, at not less than the appraised valuation, in quantities to suit purchasers. Payments for such timber to be made to the receiver of the local land office of the district wherein said timber may be sold, under such rules and regulations as the Secretary of Agriculture may prescribe; and the moneys arising therefrom shall be accounted for by the receiver of such land office to the Secretary of Agriculture, in a separate account, and shall be covered into the Treasury. Such timber, before being sold, shall be marked and designated, and shall be cut and removed under the

supervision of some person appointed for that purpose by the Secretary of Agriculture not interested in the purchase or removal of such timber nor in the employment of the purchaser thereof. Such supervisor shall make report in writing to the Secretary of Agriculture and to the receiver in the land office in which such reservation shall be located of his doings in the premises.

June 4, 1897, c. 2, § 1, 30 Stat. 35; June 6, 1900, c. 804, 31 Stat. 661; Feb. 1, 1905, c. 288, § 1, 33 Stat. 628; June 30, 1906, c. 3913, 34 Stat. 684; Mar. 3, 1925, c. 457, § 3, 43 Stat. 1132; May 27, 1952, c. 337, 66 Stat. 95.

16 U.S.C. § 535. Same; forest development roads; acquisition, construction, and maintenance; maximum economy; methods of financing; cost arrangements for construction standards

The Secretary is authorized to provide for the acquisition, construction, and maintenance of forest development roads within and near the national forests and other lands administered by the Forest Service in locations and according to specifications which will permit maximum economy in harvesting timber from such lands tributary to such roads and at the same time meet the requirements for protection, development, and management thereof, and for utilization of the other resources thereof. Financing of such roads may be accomplished (1) by the Secretary utilizing appropriated funds, (2) by requirements on purchasers of national forest timber and

other products, including provisions for amortization of road costs in contracts, (3) by cooperative financing with other public agencies and with private agencies or persons, or (4) by a combination of these methods; Provided, That where roads of a higher standard than that needed in the harvesting and removal of the timber and other products covered by the particular sale are to be constructed, the purchaser of the national forest timber and other products shall not be required to bear that part of the costs necessary to meet such higher standard, and the Secretary is authorized to make such arrangements to this end as may be appropriate.

Pub.L. 88-657, § 4, Oct. 13, 1964, 78 Stat. 1089.

APPENDIX D

36 CFR § 221.7 Appraisal and contract conditions.

(a) The objective of National Forest timber appraisals is to establish fair market value. The basic procedure will be analytical appraisal under which stumpage value is a residual value determined by subtracting from the selling value of the products normally manufactured from the timber the sum of estimated operating costs, including costs to the purchaser for construction of roads or other developments needed by the purchaser for removal of the timber, and margins for profit and risk. Costs and product values shall be those of an operator of average efficiency and related to the operating difficulties and to size and quality of the timber. All pertinent factors affecting market value shall be considered including but not limited to prices paid in transactions and

valuations established for other purposes for comparable timber. Consideration of such prices and valuation shall recognize and adjust for factors which are not normal market influences.

(b) The Chief, Forest Service, shall establish minimum stumpage rates for species and products on individual National Forests, or groups of National Forests. No timber may be sold or cut under commercial timber sales for less than such minimum rates.

(c) Appraisal may also establish stumpage value as if unconstructed roads or other developments needed by the purchaser for removal of the timber were in place. When timber is appraised and sold on such basis, the estimated cost of construction of such roads or other developments specified in the timber sale contract shall, when such construction is accomplished by

Purchaser, be deducted from stumpage payments made by or due from Purchaser under the timber sale contract for other than minimum stumpage rates and required deposits for slash disposal. Such estimated constructions costs may be adjusted during the period of the contract in accordance with contract terms to reflect agreed to changes in location, construction specifications, physical conditions, or other circumstances which (1) either justify a reestimate of work quantities, or (2) result in variance between the estimate of construction quantities and those needed and accomplished by the Purchaser.

(d) Timber shall be advertised for sale at its appraised value, but at not less than minimum stumpage rates. If advertised at its appraised value based on an assumption roads are in place, the advertised rate shall include an equivalent

to the amortization rate for the estimated cost of such roads expected to be constructed by Purchaser.

(e) Timber may be appraised and sold at a lump-sum value or at a rate per unit of measure which rate may be adjusted during the period of the contract and as therein specified in accordance with formulas or other equivalent specifications for the following reasons: (1) Variations in lumber or other product value indices between the price index base specified in the contract and the price index actually experienced during the cutting of the timber; (2) variance between advertised rates and rates determined by appraisal at dates specified in the contract; (3) variance between redetermined rates and rates appropriate for changes in costs or selling values subsequent to the rate redetermination which reduce conversion

value to less than such redetermined rates; and (4) substantial loss of value due to physical deterioration of green timber.

(f) All sale contracts exceeding 7 years in duration, and those of shorter duration to the extent found desirable by the officer authorizing the sale, will provide for the redetermination of rates for stumpage and for required deposits at intervals of not more than 5 years, exclusive of any period allowed for the construction of improvements; but contracts for large sales in Alaska, involving installation of extensive manufacturing facilities, may provide that the first redetermination of rates and deposits will be made after not more than 10 years, exclusive of any period allowed for the construction of improvements.

[30 F.R. 8519, July 3, 1965, as amended at 83 F.R. 18026, Dec. 4, 1968]

APPENDIX E

FSM 2431.23 - Sale Volume Determination.

Determination of the timber volume to be cut from the sale area will be carefully made, since a prospective purchaser should reasonably expect to base his operating plans and cost estimates on such figures. * * * * Accurate quality estimates are also essential if the appraisal is to properly reflect the timber value. Insofar as practicable, in order to permit accurate estimates of quantity and quality, marking or designating of timber to be cut should be completed prior to advertisement. Regional Foresters will specify procedures to be used for sale volume determination. In specifying procedures, they should be alert to new methods of sampling and volume determination and should promptly adopt new methods which will improve efficiency or accuracy. Sufficient documentation of the

volume and quality determination is needed to assure the officer authorized to make the sale and the prospective purchaser that the field work has been done carefully and the data handled properly.

Cruise volumes and grade data are frequently needed during the life of the contract for scheduled or extension rate redetermination, catastrophic damage determination, contract modifications, or appeal actions. It is important that the basic field-tally sheets, statistical design and summary tables be retained for 6 years after date of closure. Because of storage space requirements, those papers which are not needed to reconstruct volume or grade estimates may be disposed of sooner. Some ADP output listings fall in this category. They may have limited utility, for example, because of changes in processing equipment and programs. Regional Foresters may establish retention

standards for the various ADP outputs.

Regional Foresters will specify procedures to be used for sale volume determination.

APPENDIX F

UNIFORM COMMERCIAL CODE

Section 2-302. Unconscionable Contract or Clause.

(1) If the court as a matter of law finds the contract or any clause of the contract to have been unconscionable at the time it was made the court may refuse to enforce the contract, or it may enforce the remainder of the contract without the unconscionable clause, or it may so limit the application of any unconscionable clause as to avoid any unconscionable result.

(2) When it is claimed or appears to the court that the contract or any clause thereof may be unconscionable the parties shall be afforded a reasonable opportunity to present evidence as to its commercial setting, purpose and effect to aid the court in making the determination.